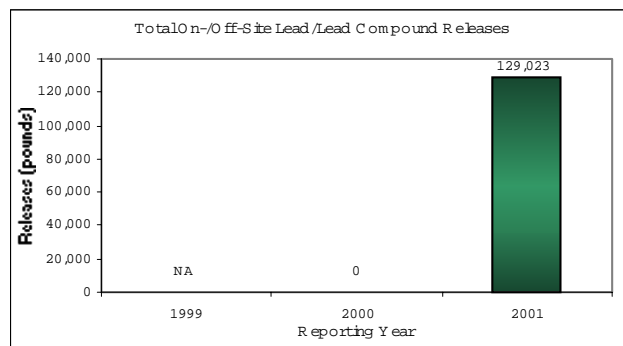
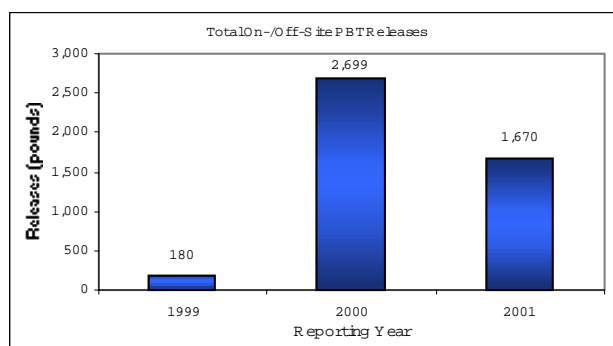
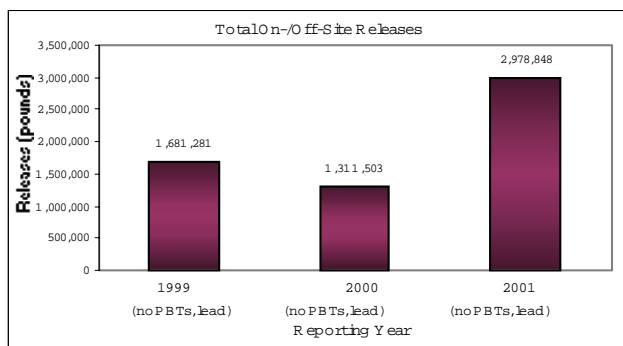




Hawaii Report: 2001 Toxics Release Inventory

U.S. EPA Region 9
Nevada, California,
Hawaii, Nevada,
and the Pacific
Islands

Toxic Chemical Releases: 1999-2001



Total Releases (in pounds) for Reporting Years 1999-2001					
Year	Air	Water	On-Site Land	Underground Injection	Off-Site
1999	1,584,809	2,721	38,163	5,070	50,338
2000	1,057,090	1,224	31,833	7,284	214,180
2001	2,379,962	29,770	224,400	2,071	472,309

Table does not reflect changes in reporting requirements

Note: In order to directly compare 1999, 2000 and 2001 releases, PBT and lead/lead compound chemical reported releases are illustrated separately in the charts above.

The 2001 Public Data Release

EPA has just made public the 2001 data on toxic chemicals that were released to Hawaii's air, water and land. This information comes from the Toxics Release Inventory (TRI), a federal community right-to-know program. In Hawaii, 38 facilities reported 3.1 million pounds of toxic chemical releases*.

It is important to note that release should not be directly

equated with risk. To evaluate risk, release data must be combined with information about chemical toxicity, site-specific conditions, and exposure. In addition, these data do not indicate whether a facility is violating environmental laws. Many of the substances reported through this program are subject to state and federal regulations designed to protect human health and the environment.

* Release is defined as the amount of a toxic chemical released on-site (to air, water, underground injection, landfills and other land disposal), and the amount transferred off-site for disposal. Year to year data comparisons do not reflect changes in reporting requirements.

Industries

Manufacturing industries have been reporting their releases since reporting year (RY) 1987, and federal facilities started reporting in RY 1994. In RY 1998, an additional seven industry sectors began reporting their toxic chemical releases. These sectors are metal and coal mining, electricity generation, commercial hazardous waste treatment, solvent recovery, petroleum bulk terminals, and wholesale chemical distributors.

Releases

Total reported on- and off-site releases for all industries in Hawaii increased by 137% from 2000. Most of this increase can be attributed to increased reported air emissions from electricity generating facilities that have used different calculation methods. Production volume and processes have not changed at these facilities. Surface water discharges increased by nearly 29,000 pounds due in large part to increased reported releases from the Chevron Refinery in Kapolei. Underground injection releases decreased by 72% due to decreases at Tesoro Refinery in Kapolei. On-site land releases increased by 605%, due mostly to the first time reporting of four federal facilities. In past years, these federal facilities have engaged in similar activities which release chemicals to land, but did not report to TRI until 2001. Off-site disposal releases increased by more than 210,000 pounds from 2000 off-site releases, due in part to the Tesoro Refinery in Kapolei, Honolulu.

Persistent, Bioaccumulative, and Toxic Chemicals

In the year 2000, TRI was expanded to include additional persistent, bioaccumulative and toxic (PBT) chemicals and required reporting for these chemicals

at lower thresholds, ranging from 0.1 grams to 100 pounds. PBT pollutants are toxic chemicals that persist in the environment and bioaccumulate in food chains, thus posing risks to human health and ecosystems.

In Hawaii, 131,134 pounds of on- and off-site releases of PBT chemicals were reported. Of this, over 120,000 pounds were releases of lead, and 6.109 grams were releases of dioxin or dioxin-like compounds.

Below is a table of the PBT releases in Hawaii ranked by total on- and off-site releases. The data are in pounds for all chemicals except dioxin, which are given in grams.

New Data - Lead and Lead Compounds

For the year 2001, lead and lead compounds were reported as persistent, bioaccumulative and toxic (PBT) chemicals for the first time. While lead and lead compounds have been on the list of reportable chemicals since 1987, for the year 2001 the reporting threshold was drastically lowered (to 100 pounds manufactured, processed, or otherwise used), and this change has resulted in more comprehensive release information for these compounds.

Federal military range facilities released to land nearly 100% of the lead releases in Hawaii. Most of the lead compounds reported were released to air by electricity generating facilities. Federal facilities and oil refineries also release lead compounds to air.

Polycyclic Aromatic Compounds (PACs)

Electricity generating facilities released to the air nearly 100% of the PACs reported in 2001. The oil refining industry released over 250 pounds of PACs to water.

Table of PBT Releases in Hawaii

<i>Chemical</i>	<i>Air</i>	<i>Water</i>	<i>Und. Inj.</i>	<i>Land</i>	<i>Off-site Release</i>	<i>Total On- and Off-site Releases 2001</i>	<i>Total On- and Off-site Releases 2000</i>	<i>Percent Change</i>
Lead	4.70	0.00	0.00	77,019.00	43,000.00	120,023.70	N/A	N/A
Lead Compounds	4,726.10	20.50	4.10	3.00	4,246.00	8,999.70	N/A	N/A
Polycyclic aromatic compounds	1,219.27	253.00	0.00	0.42	3.00	1,475.69	2,591.82	-43%
Mercury compounds	91.37	3.60	2.30	0.00	30.00	127.27	100.38	27%
Mercury	23.00	0.00	0.00	0.00	43.00	66.00	N/A	N/A
Benzo(g,h,i)perylene	0.89	0.00	0.00	0.00	0.00	0.89	0.92	-3%
Dioxin and dioxin-like compounds (in grams)	5.109	0.000	0.000	0.000	1.000	6.109	5.933	3%

Releases of persistent, bioaccumulative and toxic (PBT) chemicals (pounds). Dioxin and dioxin-like compounds data not in Toxicity Equivalence (TEQ).

Top Facilities for Releases

The top 10 facilities for total on- and off-site releases in Hawaii are:

Ø Hawaiian Electric Industry Inc. Kahe Generating Station, Kapolei, Honolulu, 904 thousand pounds

Ū Hawaiian Electric Industry Inc. Waiau Generating Station, Pearl City, Honolulu, 338 thousand pounds

Ū U.S. Army Schofield Barracks, Schofield, Honolulu, 327 thousand pounds

Ū Hill Generating Station, Hilo, Hawaii, 260 thousand pounds

Ū Chevron Prods. Co. Hawaii Refinery, Kapolei, Honolulu, 212 thousand pounds

Ÿ Maui Electric Co. Ltd. Kahului Generating Station, Kahului, Maui, 210 thousand pounds

Ò AES Hawaii Inc., Kapolei, Honolulu, 129 thousand pounds

Ó U.S. Army Schofield Barracks Range Facility, Schofield, Honolulu, 125 thousand pounds

Ô Hawaiian Electric Industry Puna Generating Station, Keaau, Hawaii, 110 thousand pounds

Õ Ball Metal Beverage Container Corp., Kapolei, Honolulu, 86 thousand pounds

On-line Access

For national information on data release, see:

<http://www.epa.gov/tri>

The TRI data is available through the Envirofacts Warehouse, EPA's premier Internet site for distributing environmental information at:

<http://www.epa.gov/enviro>

or the TRI Explorer tool:

<http://www.epa.gov/triexplorer>

For general information on the Toxics Release Inventory, including reporting requirements for businesses, go to:

<http://www.epa.gov/region09/toxic/tri>

For more information on the EPA's PBT Chemicals Program:

<http://www.epa.gov/opptintr/pbt/>

Information and Assistance

We will be more than happy to answer your questions and assist you in learning more about the Toxics Release Inventory program in Region 9.

U.S. EPA Region 9 TRI Coordinator

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